U. S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT Environmental Management/Bechtel Jacobs Company LLC	**2. DATE** 10/23/02	**3. IDENTIFICATION NUMBER** DE-AC05-98OR22700
4. WBS ELEMENT CODE 04.03.07.01	**5. WBS ELEMENT TITLE** Paducah STP/MLLW Project	
6. INDEX LINE NO. N/A	**7. REVISION NO. AND AUTHORIZATION** Rev 2	**8. DATE** 01/23/03
9/. APPROVED CHANGES N/A		
10. SYSTEM DESIGN DESCRIPTION N/A		**11. BUDGET AND REPORTING NUMBER** N/A

12. ELEMENT TASK DESCRIPTION

WBS GRAPHIC

See Attached

INTRODUCTION

Management and Integration WBS: 04.03.07.01.01

- ? To provide project management, task and baseline planning, project controls and oversight of subcontractors for the Paducah STP/MLLW Project activities.
- ? To provide interface with treatment and disposal facilities in contracting services.

STP WBS: 04.03.07.01.02

- ? To characterize and treat approximately 500 cubic meters of legacy STP/ MLLW
- ? To dispose of legacy RCRA/TSCA/RAD Liquid and Combustible Soft Solid Waste at the TSCAI.
- ? To issue STP quarterly and annual reports

Mixed Waste Treatment Onsite WBS: 04.03.07.01.04

- ? To ship treated TRU waste to the Oak Ridge site for inclusion with other DOE TRU waste disposal shipments.

Hazardous WBS: 04.03.07.01.05

- ? To treat and discharge organic (TCE and PCB) contaminated wastewater to meet KPDES requirements.
- ? To dispose of legacy hazardous waste (including PCB capacitors, transformers, and other articles)

DOE Prime WBS: 04.03.07.01.06

- ? To provide funding for the treatment and disposal of wastes using DOE prime contracts

Decontamination of Empty Containers WBS: 04.03.07.01.07

- ? Decontaminate and disposal of approximately 3200 empty RCRA/TSCA/RAD containers

ACRONYMS

BJC	Bechtel Jacobs Company LLC
BCP	Baseline Change Proposals
CX	Categorical Exclusion
DOE	United States Department of Energy
DOT	United States Department of Transportation
EA	Environmental Assessment

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
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04.03.07.01	Paducah STP/MLLW Project	

FONSI	Findings of No Significance Impacts
FY	Fiscal Year
HP	Health Physics
KPDES	Kentucky Pollutant Discharge Elimination System
LCB	Lifecycle Baseline
MLLW	Mixed Low-Level Waste
NEPA	National Environmental Policy Act
NOV	Notice of Violation
PACE	Paper, Allied-Industrial, Chemical and Energy Worker International Union
PBI	Performance Based Incentives
PCB	Polychlorinated Biphenyl
QA	Quality Assurance
RAD	Radioactive
RCRA	Resource Conservation Recovery Act
REA	Request for Equitable Adjustment
SMO	Sample Management Office
STP	Site Treatment Plan
TCE	Trichloroethylene
Tc-99	Technetium
TSCA	Toxic Substance Control Act
TSCAI	Toxic Substance Control Act Incinerator
TRU	Transuranic Waste
WAC	Waste Acceptance Criteria
WBS	Work Breakdown Structure
WCS	Waste Control Specialist
WIPP	Waste Isolation Pilot Plant

LOGIC RELATIONSHIPS

? The Oak Ridge TRU program will be completed the by the end of FY 2005. Therefore, Paducah treated TRU waste needs to be shipped during FY 2004. The Oak Ridge TSCAI will operate through FY 2006.

SCOPE DESCRIPTION

Release Sites and Facilities

Assessments to be completed

NA

Actions to be completed

NA

Past and Future Accomplishments

Past Accomplishments

? Completed the treatment of 30 cubic meters of MLLW according to the STP schedule.
? Issued STP quarterly and annual reports.
? Treated approximately 8.5 cubic meters of RCRA/RAD waste at WCS.
? Completed the dismantlement of the C-746-Q Tc-99 container.
? Treated on-site and discharged 10,000 gallons of newly generated organic wastewater to meet

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Environmental Management/Bechtel Jacobs Company LLC	10/23/02	DE-AC05-98OR22700
4. WBS ELEMENT CODE	**5. WBS ELEMENT TITLE**	
04.03.07.01	Paducah STP/MLLW Project	

KPDES requirements.

- ? Shipped 420 PCB capacitors to Onyx for disposal.
- ? Disposed of up to 10 cubic meters of RCRA/PCB/RAD liquid at the TSCAI.
- ? Characterized and shipped off-site 913 lead acid batteries.
- ? Treated approximately 5.8 cubic meters of acids and bases.
- ? Delivered Final Waste Disposition EA to DOE for approval.
- ? Neutralized 3 acid containers on-site.
- ? Completed the disposal of TSCAI 00-02, TSCAI 01-01and TSCAI 02-01at the TSCAI
- ? Disposed of gas cylinders, batteries, Hg rectifiers, and capacitors shown to be non-rad.
- ? Completed the disposal of PCB capacitors that were improperly disposed in FY 2001.
- ? Completed the treatment of ~15.4 cubic meters of waste at WCS.
- ? Treated 15,000 gallons of waste water from C-403 Neutralization Pit.

Future Accomplishments

- ? Approve and issue the waste disposition EA (FY02 Carryover).
- ? Complete treatment of STP legacy MLLW.
- ? Treat off-site approximately 140 cubic meters of STP MLLW (FY02 Carry over).
- ? Issue STP quarterly and annual reports.
- ? Characterize and dispose up to 109.5 cubic meters of RCRA/PCB/RAD combustible soft solids at the TSCAI (FY02 Carry over).
- ? Dispose up to 48 cubic meters of legacy RCRA/PCB/RAD combustible soft solids at the TSCAI.
- ? Dispose up to 10 cubic meters annually of newly generated RCRA/PCB/RAD liquid at the TSCAI.
- ? Ship ash from ash receivers back to Envirocare for retreatment and disposal (FY02 Carry over)
- ? Complete Envirocare treatability study and retreat. Dispose of ash-receiver ash boxes and ash-receiver ash samples.
- ? Treat on-site and discharge up to 15,000 gallons annually of newly generated organic wastewater to meet KPDES requirements.
- ? Complete the on-site treatment of ~133 containers of MLLW (FY02 Carry over).
- ? Characterize, treat and package for disposal at WIPP ~6.0 cubic meters total of liquid (~3.0 cubic meters) and solid (~3.0 cubic meters) TRU waste (FY02 Carry over).
- ? Ship 14 cubic meters of treated TRU waste to Oak Ridge for inclusion with other DOE TRU waste disposal shipments to WIPP.
- ? Complete the shipment of treated waste from Broad Spectrum Subcontractors to Envirocare.
- ? Complete the decontamination and disposal of approximately 3200 empty RCRA/TSCA/RAD containers.
- ? Complete the treatment and disposal of 19 PCB transformers (FY02 Carryover).
- ? Sample and discharge 15,000 gallons of waste water from C-403 Neutralization Pit (FY02 Carry over).
- ? Treat approximately 35 cubic meters of acids and bases (FY02 Carry over).

Scope (FY 2003 scope through complete)

Management and Integration WBS: 04.03.07.01.01

- ? Provide project integration including task management, project control, baseline planning and BCPs.
- ? Provide oversight of the Waste Operations Subcontractor and other BJC Subcontractors.
- ? Provide interface with treatment and disposal facilities in contracting services.

STP WBS: 04.03.07.01.02

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
Environmental Management/Bechtel Jacobs Company LLC	10/23/02	DE-AC05-98OR22700
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04.03.07.01	Paducah STP/MLLW Project	

Mixed Waste Treatment OffsiteWBS:04.03.07.01.02.01

- ? Complete MLLW treatment and characterization according to the STP, which include HP support, analytical, verification, sampling, field support, and reporting.
- ? Ship the remainder of treated waste to Envirocare for disposal.
- ? Final EA and FONSI approved by DOE.
- ? Ship ash receiver ash to Envirocare (FY02 Carry over) and treat and at Envirocare.
- ? Treat off-site approximately 140 cubic meters of STP MLLW (FY02 Carry over).
- ? Treat approximately 35 cubic meters of acids and bases (FY02 Carry over).

STP Reports WBS: 04.03.07.01.02.03

- ? Issue STP quarterly and annual reports.

TSCAI Liquid WBS: 04.03.07.01.02.04

- ? Dispose of up to 10 cubic meters of newly generated PCB/RCRA/RAD liquid annually at the TSCAI.
- ? Ensure waste meets the TSCAI WAC
- ? Certify waste for disposal.
- ? Prepare necessary DOT paperwork.
- ? Pump liquid into transportation vehicle and ship to the TSCAI.

TSCAI Solids WBS: 04.03.07.01.02.08

- ? Dispose remainder of legacy PCB/RCRA/RAD combustible soft solids at the TSCAI.
- ? Ensure waste meets the TSCAI WAC.
- ? Certify waste for disposal.
- ? Prepare necessary DOT paperwork.
- ? Survey and load containers on transportation vehicle and ship to the TSCAI.
- ? Characterization and shipment of 594 containers of soft solids to the TSCA Incinerator (TSCAI) at ETTP (FY02 Carry over).

Mixed Waste Treatment Onsite WBS: 04.03.07.01.04

- ? Shipment of 14 cubic meters of treated TRU waste that meets WIPP WAC to the Oak Ridge site. The Paducah waste will be included in Oak Ridge TRU disposal shipments to WIPP.
- ? The Mixed Waste Treatment contract will treat and stabilize over 130 drums of mixed radioactive and TRU waste. This waste will be treated to meet approved WAC for offsite disposal facilities.

Hazardous WBS: 04.03.07.01.05

Wastewater Treatment WBS:04.03.07.01.05.01

- ? Collect and containerize newly generated organic wastewater from Paducah Waste Project operations.
- ? Sample and characterize newly generated organic wastewater to determine if wastewater meets treatment systems WAC.
- ? Sample and characterize treated wastewater.
- ? Treat up to 5,000 gallons of newly generated organic wastewater that meet WAC in either the C-752-A carbon filtration units or the photo-catalytic reactor.
- ? Discharge up to 5000 gallons of newly generated organic contaminated wastewater per year to meet KPDES requirements.
- ? Sample, and discharge approximately 15,000 gallons of wastewater from the C-403 neutralization pit (FY02 Carryover).

PCB Articles WBS 04.03.07.01.05.03

- ? Decontaminate, repackage, and ship off-site the remainder legacy PCB capacitors.
- ? Treat and dispose of the 19 PCB transformers (FY02 Carry over).

DOE Primes 04.03.07.01.06

- ? Provide funding for the disposal of wastes using DOE prime disposal contracts.

Decontaminate Empty Containers WBS: 04.03.07.01.07

- ? Decontaminate approximately 3200 empty RCRA/TSCA/RAD containers
- ? Complete disposal of decontaminated empty containers to either on-site and/or off-site disposal facilities

Safety and Health Work Performance

Introduction to the section

It is the core value of BJC that the safety and health of every worker and the public at large, and our environment, are the most important assets we are entrusted to protect. To accomplish this, an Integrated Safety Management System (ISMS), based on DOE's ISMS has been implemented that incorporates the Five Core Functions and is based on the Seven Guiding Principles. The objective of ISMS is to systematically integrate safety and environmental protection into the planning and execution of all work activities. The term safety encompasses Nuclear Safety, Industrial Safety, Industrial Hygiene, Occupational Health, HP, and environmental issues. ISMS requirements flow-down to BJC subcontractors. The Five Core Functions are: (1) Define the scope of work, (2) Analyze hazards, (3) Develop and implement hazard controls, (4) Perform work within controls, and (5) Provide feedback and continuous improvement. The Seven Guiding Principles are (1) Line Management Responsibility for Safety, (2) Clear Roles and Responsibilities, (3) Competence commensurate with responsibility, (4) Balanced Priorities, (5) Identification of Safety Standards and Requirements, (6) Hazard Control Tailored to Work Being Performed, and (7) Operations Authorization.

Before a subproject begins, several activities must be completed to demonstrate that all involved in the project have completed rigorous health and safety reviews and that all potential hazards of doing the work have been identified. The routine activities are conducted in accordance with standard operating procedures, activity hazard analyses, and Integrated Safety Management plans. Non-routine work will require a readiness assessment as necessary to ensure complete health, safety, and environmental reviews prior to work start. This assessment is conducted by people, experienced in similar kinds of work, with the right to examine all aspects of a project about to commence, and require that the project team provide documented evidence that any applicable requirements of the job have been met.

REQUIREMENTS/DRIVERS

BJC Contract DE-AC05-98OR22700, December 18, 1997
ISMS Description, BJC/OR-87, Revision 1, April 1999
Paducah Waste Operations Subcontract 23900-BA-RM005F
Paducah STP
Paducah Hazardous Waste Permit
Uranium Enrichment TSCA Federal Facility Compliance Agreement
DOE Order 435.1
"Integrated Safety Management System Description, BJC-GM-1400, Revision 2, October 2001 and Integrated Safety Management System Supplement, BJC-GM-1401, Revision 0, December 2000"

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Safety Analysis Report EM/KY-174, January 1997

As applicable, indicate other regulatory-related requirements
CERCLA: N RCRA: Y DNFSB: N DOE Order: Y AEA: N UMTRCA: N State: Y OTHER: N

WASTE VOLUMES

Please see attached waste performance metrics, as applicable. The waste quantities supporting the method of accomplishment and basis of estimate are consistent with data reported on the Waste Performance Metrics Form.

PROJECT SCHEDULE

Please see attached project summary schedule, project detail schedule, and Milestone Status Summary Report.
Schedule Assumptions:

EXECUTION YEAR BASELINE

Please see attached Budgeted Cost of Work Scheduled Plan.

BASELINE BY YEAR

Please see attached Baseline by Year Report.